

No. of Printed Pages : 03

Roll No. ....

**18AA2202**

**M. Arch. EXAMINATION, May 2019**

(First Semester)

(C Scheme) (Re-appear)

SUSTAINABLE ARCHITECTURE

MARC603C

Climate Responsive Architecture in Tropics

*Time : 3 Hours]*

*[Maximum Marks : 75*

---

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

---

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

(2-30/3) M-18AA2202

**P.T.O.**

### **Unit I**

1. Discuss significance and applications of climate responsive architecture techniques used in contemporary modern architecture with suitable examples.
2. Explain how site microclimate elements can enhance climatic conditions and provide thermal comfort.

### **Unit II**

3. Explain correlation between dry bulb temperature and humidity in comfort potential zone in different climates.
4. Explain with diagram concept of time lag and decrement in thermal mass buildings.

### **Unit III**

5. What are principles of design of thermal insulation in building envelope for different climatic zones ?

6. Write short note on Shading Coefficient, Visible light transmittance LT, Day light factor as used in building.

### **Unit IV**

7. Discuss the concept and construction detail of skytherm ponds in cold climates.
8. Explain sun path diagram and method to calculate shadow angle in a building at a given date and time.